

**From:** [Burton, Terry](#)  
**To:** [Bret.Schothorst@ManTech.com](mailto:Bret.Schothorst@ManTech.com)  
**Cc:** [Mike Aslaksen - NOAA Federal](#); [Barnes, Joshua J. EOP/NSC](#); [Bennett, April \(NIH/NIEHS\) \[C\]](#); [Bohn, Catherine; Bres, Dana B](#); [Brian.R.Cameron@nga.mil](mailto:Brian.R.Cameron@nga.mil); [Cauffman, Stephen A. \(Fed\)](#); [Clavin, Christopher T](#); [echavarriafr@state.gov](mailto:echavarriafr@state.gov); [Erickson, Mitchell](#); [Kenneth Graham - NOAA Federal](#); [Barbara.Haines-Parmelee@mantech.com](#); [Doug Ham](#); [Hinkley, Everett A -FS](#); [Hynes, Mary Ellen](#); [Levitan, Marc](#); [Long, Kevin](#); [Ludwig, Kristin](#); [MacGill, Tracy](#); [Mollie Mahany](#); [Mendonca, David Joseph](#); [Miller, Aubrey \(NIH/NIEHS\) \[E\]](#); [Hanna Moerland](#); [Moran, Thomas](#); [John Murphy - NOAA Federal](#); [Murray, John J. \(LARC-E303](#); [Niles, Anthony R HQ](#); [Peppler, Marie](#); [Peters, Andrew](#); [Petrooulos, Zoe E](#); [Sayles, Gregory](#); [Seiler, Brittney \(OS/ASPR/OEM\)](#); [Shelton, Gregory](#); [Steinmetz, Jason](#); [Tokar, Ayse Sezin\(DCHA/OFDA\)](#); [Suzanne Van Cooten - NOAA Federal](#); [Vaughan, Christopher](#); [Walsh, Erin \(S&T\)](#); [West, Jeremy](#); [Yun, Sang-Ho \(334D\)](#); [Renda.Mcelroy@tenethealth.com](mailto:Renda.Mcelroy@tenethealth.com)  
**Subject:** FW: ORD HQ is requesting assistance from Region 6; how to proceed? - we do the briefing  
**Date:** Thursday, September 08, 2016 10:19:30 AM  
**Attachments:** [LA Floods 2016 \(1\).pptx](#)  
[ATT00001.htm](#)

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Sorry for the delay in sending these out. These are the EPA Region 6 slides.

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**From:** Delgado, Eric  
**Sent:** Thursday, September 08, 2016 10:04 AM  
**To:** Burton, Terry <[Burton.Terry@epa.gov](mailto:Burton.Terry@epa.gov)>  
**Subject:** Fwd: ORD HQ is requesting assistance from Region 6; how to proceed? - we do the briefing

Sent from my iPad

Begin forwarded message:

**From:** "Delgado, Eric" <[Delgado.Eric@epa.gov](mailto:Delgado.Eric@epa.gov)>  
**Date:** September 6, 2016 at 13:35:41 CDT  
**To:** "Crossland, Ronnie" <[Crossland.Ronnie@epa.gov](mailto:Crossland.Ronnie@epa.gov)>, "Smith, Monica" <[smith.monica@epa.gov](mailto:smith.monica@epa.gov)>  
**Subject:** Re: ORD HQ is requesting assistance from Region 6; how to proceed? - we do the briefing

how's this

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**From:** Crossland, Ronnie  
**Sent:** Tuesday, September 6, 2016 9:04:28 AM  
**To:** Delgado, Eric  
**Cc:** Smith, Monica  
**Subject:** Re: ORD HQ is requesting assistance from Region 6; how to proceed? - we do the briefing

Eric,

I would be good to discuss the benefits of the system during a response. For example, common operating picture, real time reporting, etc.

pictures/maps would be good

Ronnie

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**From:** Delgado, Eric  
**Sent:** Tuesday, September 6, 2016 8:35 AM  
**To:** Crossland, Ronnie  
**Cc:** Smith, Monica  
**Subject:** Re: ORD HQ is requesting assistance from Region 6; how to proceed? - we do the briefing

here is a first draft. let me polish it up some more today. I wanted to get you something first thing to give you an idea what it looks like.

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**From:** Crossland, Ronnie  
**Sent:** Friday, September 2, 2016 2:15:26 PM  
**To:** Delgado, Eric  
**Cc:** Smith, Monica  
**Subject:** Fwd: ORD HQ is requesting assistance from Region 6; how to proceed? - we do the briefing

Sent from my iPhone

Begin forwarded message:

**From:** "Smith, Monica" <[smith.monica@epa.gov](mailto:smith.monica@epa.gov)>  
**Date:** September 2, 2016 at 9:02:48 AM EDT  
**To:** "Crossland, Ronnie" <[Crossland.Ronnie@epa.gov](mailto:Crossland.Ronnie@epa.gov)>  
**Subject:** FW: ORD HQ is requesting assistance from Region 6; how to proceed? - we do the briefing

**From:** Doyle, Brendan  
**Sent:** Thursday, September 01, 2016 3:14 PM  
**To:** Burton, Terry <[Burton.Terry@epa.gov](mailto:Burton.Terry@epa.gov)>  
**Cc:** Sayles, Gregory <[Sayles.Gregory@epa.gov](mailto:Sayles.Gregory@epa.gov)>; Nichols, Tonya <[Nichols.Tonya@epa.gov](mailto:Nichols.Tonya@epa.gov)>; Koglin, Eric <[Koglin.Eric@epa.gov](mailto:Koglin.Eric@epa.gov)>  
**Subject:** Re: I heard you used some new software during the flood response?

Hi Terry!

This is perfect!

Can you put me in touch w your colleague and ask him or her (or their Div.Director) to do a 2-5 slide presentation between 10-12 am Thursday 9/8 by phone? Please ask designated presenter to call me and I can give him/her more background.

Many thanks!

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**From:** Phillips, Pam  
**Sent:** Thursday, September 01, 2016 5:18 PM  
**To:** Gray, David <[gray.david@epa.gov](mailto:gray.david@epa.gov)>; Taheri, Diane <[Taheri.Diane@epa.gov](mailto:Taheri.Diane@epa.gov)>; Crossland, Ronnie <[Crossland.Ronnie@epa.gov](mailto:Crossland.Ronnie@epa.gov)>; Smith, Monica <[smith.monica@epa.gov](mailto:smith.monica@epa.gov)>; Petersen, Chris <[petersen.chris@epa.gov](mailto:petersen.chris@epa.gov)>  
**Subject:** FW: ORD HQ is requesting assistance from Region 6; how to proceed?

Ronnie, Monica, and Chris. Please get the requested slides to David and Diane nlt Tuesday morning. In addition to Response Manager, you should talk about GIS and any other tools that were used. David and Diane, once you have reviewed the slides, will you forward to Brendan Doyle, or should we forward?

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**From:** Burton, Terry  
**Sent:** Thursday, September 01, 2016 4:45 PM  
**To:** Phillips, Pam <[phillips.pam@epa.gov](mailto:phillips.pam@epa.gov)>  
**Subject:** ORD HQ is requesting assistance from Region 6; how to proceed?

Hi Pam,

An issue has come up which I feel needs to be elevated to your level. Apparently there is a White House Subcommittee on Disaster Reduction; their next meeting is scheduled for September 8. Greg Sayles, as head of ORD's National Homeland Security Research Center, is the EPA representative on this subcommittee. A gentleman named Brendan Doyle is the Senior Advisor to Sayles.

Brendan Doyle sent out a request to identify science and technology capabilities that were used during the recent Louisiana flood response. I understand that David Gray sent Doyle a general response, but Doyle was looking for more specific information. I followed up on the request today. John Martin graciously gave me some information on the enhancements to Response Manager that Region 6 has been using during the flood response. John added that Sam Coleman recently received a preview and seemed to like the extra features.

I passed this information on to Doyle this afternoon. Doyle is now

requesting someone from Region 6 to do a 2-5 slide presentation for the subcommittee next Thursday morning. I don't feel it is appropriate for me to task someone with this assignment, so I am asking what you feel should be the next steps. I am forwarding the e-mail string in case you need more context. Sorry I couldn't handle this to completion, but I think I am out of my lane now. Thank you.

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**From:** Doyle, Brendan

**Sent:** Thursday, September 01, 2016 3:14 PM

**To:** Burton, Terry <[Burton.Terry@epa.gov](mailto:Burton.Terry@epa.gov)>

**Cc:** Sayles, Gregory <[Sayles.Gregory@epa.gov](mailto:Sayles.Gregory@epa.gov)>; Nichols, Tonya <[Nichols.Tonya@epa.gov](mailto:Nichols.Tonya@epa.gov)>; Koglin, Eric <[Koglin.Eric@epa.gov](mailto:Koglin.Eric@epa.gov)>

**Subject:** Re: I heard you used some new software during the flood response?

Hi Terry!

This is perfect!

Can you put me in touch w your colleague and ask him or her (or their Div.Director) to do a 2-5 slide presentation between 10-12 am Thursday 9/8 by phone? Please ask designated presenter to call me and I can give him/her more background.

Many thanks!

Brendan Doyle  
202.564.4584

Sent from my iPhone

On Sep 1, 2016, at 12:56 PM, Burton, Terry <[Burton.Terry@epa.gov](mailto:Burton.Terry@epa.gov)> wrote:

Hey Brendan,

I got a response back from the OSC. Here is the condensed version.

For all responses, R6 uses a software platform called Response Manager. It stores all of our response data. The OSCs have been modifying Response Manager to make an application called "Flex Viewer". It adds layers of additional data to Response Manager to allow data to be shown graphically. Flex Viewer allows R6 to create a site-specific viewer for each response. I believe you described something similar at another Region.

For the Louisiana floods, R6 has also added a process called “common-operations-pictures” (COPs) from this Flex Viewer. On every response, it is challenging and time-intensive to track field data in the Situation Reports. COPs allows that data to be tabulated directly, eliminating a source of error and decreasing the times to publish our required reports.

Flex Viewer has been recently moved from a Bing-based system to a Google system, allowing for easier implementation of Google earth and Arc-GIS systems. We now anticipate using Response Manager, Flex Viewer, and COPs on future responses. I just threw a lot at you, but I hope it was helpful.

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**From:** Martin, John

**Sent:** Thursday, September 01, 2016 11:36 AM

**To:** Burton, Terry <[Burton.Terry@epa.gov](mailto:Burton.Terry@epa.gov)>

**Cc:** Delgado, Eric <[Delgado.Eric@epa.gov](mailto:Delgado.Eric@epa.gov)>

**Subject:** RE: I heard you used some new software during the flood response?

We’ve always used Response Manager that houses all our response data. The last several years, Eric and others have used the RM data plus many other layers of data for what we call Flex-Viewer which shows all the data graphically.

We have many different “flex-viewers” but they create a Site specific viewer for each big event or when requested. More recently, they have developed a “common operations picture – COPs” that takes the data and puts it in tabular form to help with Sit Reports. We pretty much down-scaled the REOC for this flood event but we were using all three systems. Sam Coleman got an impromptu show-n-tell and he liked it.

I think that they recently changed the FV platform from Bing back to Google (?) which they can utilized ARC-GIS products. Eric can explain better and will happily show you and/or give you a link and pw (?). Eric has been out but should return soon.





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**From:** Burton, Terry  
**Sent:** Thursday, September 01, 2016 10:42 AM  
**To:** Martin, John <[martin.john@epa.gov](mailto:martin.john@epa.gov)>  
**Subject:** I heard you used some new software during the flood response?

Hey John,

HQ is asking me about new or inventive technology used the recent Louisiana flood response. See the email below. I thought it was a routine flood response, but then I heard that you were using a new GIS-based software application. Could you briefly describe it for me, so I can respond to this guy at HQ? Thanks in advance.

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**From:** Doyle, Brendan  
**Sent:** Monday, August 29, 2016 10:41 AM  
**To:** Morton, Michael <[Morton.Michael@epa.gov](mailto:Morton.Michael@epa.gov)>; Burton, Terry <[Burton.Terry@epa.gov](mailto:Burton.Terry@epa.gov)>  
**Cc:** Sayles, Gregory <[Sayles.Gregory@epa.gov](mailto:Sayles.Gregory@epa.gov)>; Gray, David <[gray.david@epa.gov](mailto:gray.david@epa.gov)>; Snyder, Emily <[Snyder.Emily@epa.gov](mailto:Snyder.Emily@epa.gov)>  
**Subject:** FW: Reminder: Next SDR Meeting on September 8

Hi Michael and Terry,

I'm a Senior Advisor in ORD's National Homeland Security Research Center. Our Center Director, Greg Sayles, represents EPA on a White House science and technology/research planning committee—the Subcommittee on Disaster Reduction. They are interested in hearing from federal agencies/departments that have S&T capabilities involved in the recent Louisiana flood response at their upcoming meeting 9/8/16.

Do either of you know of any S&T capabilities in the

Louisiana response activities in Region 6? Region 7 for example, started tracking Joplin, MO flood levels and impacted regulated facilities using iPads and GIS apps four years ago.

Feel free to give me a call if you'd like to discuss my question in more detail...

Thanks,

Brendan Doyle  
EPA/ORD-NHSRC-DC  
202.564.4584

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**From:** Schothorst, Bret J  
[<mailto:Bret.Schothorst@ManTech.com>]  
**Sent:** Friday, August 26, 2016 11:16 AM  
**To:** Schothorst, Bret J <[Bret.Schothorst@ManTech.com](mailto:Bret.Schothorst@ManTech.com)>  
**Subject:** Reminder: Next SDR Meeting on September 8

Good morning, SDR Colleagues,

Just a reminder that next SDR meeting will be held on **Thursday, September 8** from 10:00-noon in the White House Conference Center Lincoln Room. Please note the change in date for September as we have moved the meeting to the second Thursday of the month to avoid proximity to the Labor Day Federal holiday.

At our September meeting, we plan to hold a roundtable discussion on the recent Louisiana floods to give the various agencies an opportunity to talk about the S&T capabilities that were brought to bear during this event for response and recovery and share any lessons learned. If agencies are interested in participating and have not already heard from me, please let me know by next **Friday, September 2**. We are looking for roughly 3-5 minutes from each agency designee, with PowerPoint slides being optional.

Many thanks in advance,  
Bret

Bret J. Schothorst  
SDR Executive Secretary  
Phone: (703) 388-0312

Email: [Bret.Schothorst@ManTech.com](mailto:Bret.Schothorst@ManTech.com)

Web: <http://www.SDR.gov>

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